COMPLETE BROILER



Economical, efficient, and everything you need.

CLIMATE CONTROL

COOLING SYSTEMS

ENVIRONMENTAL CONTROLS

umberland

Your Source for Innovative Solutions

PAN FEEDING

Cumberland Pan Feeding

Cumberland manufactures a variety of broiler pan feeder models to accommodate the specific needs of each and every grower. All of our broiler pan feeders represent a concept for taking birds from day old through adult. We can help build a system that provides the performance you need to maximize the return on your investment.

Hi-Lo™ VIII

- Multiple levels of feed depth control.
- 2" to 3.5" collapsible/expandable pan accommodates bird size.
 - 8 spoke design for easy bird access.
 - 360° pan play reduces bruising and injury.
 - Exclusive feed saving design features.
 - Optional 2-piece drop tube.

Hi-Lo™ Classic

- Multiple levels of feed depth control.
- 2" to 3.5" expandable pan accommodates bird size.
- 14 spoke design for bird separation.
- 360° pan play reduces bruising and injury.
- Optional 2-piece drop tube.



The **TELESCOPING DROP TUBE** automatically compensates for uneven floor conditions. The drop tube is available in either the standard one piece or optional two piece design.



The drop tube and grill combination allow **PLAY IN 360°**, reducing bruising and injury to the birds.

The Ultimate Flood Pan Feeder...

Care for your birds from day one through grow-out with the Pro-1* pan feeder. The Pro-1 offers unrivaled options for customization. Flood the feeder in its 2" collapsed position, or use the simple mechanism to "lock it in" as a deep pan and flood it at the 3.5" depth.



Collapsed Flood Position with Window Guard



Locked Flood Position with Window Guard

Pro-One™

- Flood feeding windows.
- Optional 2" to 3.5" collapsible/expandable pan accommodates bird size.
- First in/first out feed level settings.
- 8 spoke design for easy bird access.
- from entering the
- Optional





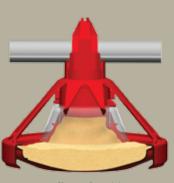


Pro-1 Retro-Kit



Hi-Lo Feed Level & Feed Level Stand

Customize the Pro-1 to your bird size and feeding requirements.



2" Collapsed Position



3.5" Locked Position

PAN FEEDING

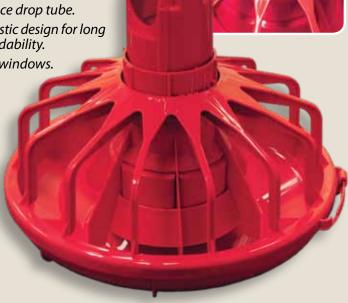
Flood Feeding With Options

Cumberland's E-Feeder and Nutrapan flood feeders can easily be adjusted to fit your particular feed level requirements. Simple to install with plenty of customizable options make these feeders a flexible choice for flood feeding.

Cumberland offers an **OPTIONAL 2-PIECE DROP TUBE** for easier in-line installation. A 2-piece drop tube is an available option for Cumberland's E-feeder and is a time saver when installing feeders on feed lines.

E-feeder[™]

- · Adjustable feed depth levels.
- 14 spoke design for bird separation.
- Optional 2-piece drop tube.
- Durable all plastic design for long life and dependability.
- · Flood feeding windows.



Nutra **Pan**

- 6 levels of feed depth control.
- Large 3.5" pan depth.
- No spoke design provides uninhibited access to the pan.
- Easy twist lock adjustment.
- Clear guard keeps chicks from entering the flood window.
- 2-piece drop tube.

Trouble Free with



The i-plus3 end control pans and center house control pans are available in the following models:

> Hi-Lo™ VIII E-feeder™

NutraPan™

As the i-plus 3 Control Pan fills, the infrared beams detect the feed level.



Better Service. Better Products

Cumberland offers a **SELECTION OF CONTROL PANS** for your feeder line. Choose from a micro switch, proximity switch, plunger style, or Cumberland's exclusive spinner motor control pan. All control pan models are durably

constructed and assure consistent feed regulation. A durable plastic **OVERFLOW BYPASS FUNNEL** redirects any feed that may have escaped falling through the control pan drop tube conveniently back into the feed pan.



Cumberland's *i-plus3* Control Pan Line utilizes Infrared Technology to sense and detect the level of feed in the control pan for proper and reliable operation, day in and day out. *Infrared Technology* requires no moving parts or sensitivity adjustments.

- Easy installation.
- Low maintenance.
- Easy to use with no moving parts or sensitivity adjustments.
- Reliable feed sensing technology that promotes full pans and healthy birds to maximize feed conversions.
- Power supply is included in the i-plus3 control pan for an optional LED light.



When the feed level breaks all three of the infrared sensors, the auger will stop automatically.



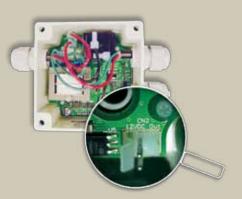
When the feed drops below the infrared sensors, the auger will re-start automatically after a 60 second delay.



An **OPTIONAL HI-LO CONTROL PAN LED LIGHT** is available to stimulate bird activity to the feed line control pan. Where other systems utilize a directional light source mounted outside the control pan, Cumberland's light assembly attaches directly above the feed pan providing 360° of lighting coverage.

Easy Install and Setup:

- Easily retrofitted to existing Cumberland Hi-Lo control pans in the field.
- Kit is factory assembled for ease of field installation.
- Control Pan Light can be operated on 115VAC or 230VAC.
- Substantial energy savings per year when compared to a standard 60 watt bulb.
- The Control Pan LED Light plugs directly into the power supply included in the i-plus3 Control Pan.



PAN ACCESSORIES

Long life, easy cleaning and reliability adds to the overall pan feeding performance. E-Chick Booster with Cone E-Chick Booster Chick Booster with Cone **Economical Feed Tray Heavy Duty Feed Tray** Chick Booster

CUMBERLAND FEED TRAYS used with the Chick Booster, will provide the needed feed space in your broiler application. These Feed Trays are made of durable polypropylene for long life, easy cleaning, and dependability.

Cumberland's CHICK BOOSTER AND E-CHICK BOOSTER are available with or without cone. The cone restricts the feed flow amount to feed trays for one uniform feeding and less crowding.



Light, durable, fully galvanized **FEED LINE HOPPERS** are available in 120, 200, 300 and 400 lb. capacity.



Heavy fabricated, galvanized, **SINGLE AND DOUBLE OUTLET BOOTS** are available for end or center house feeding applications.

Optional Feed Hopper Rotation Suspension Kit

STANDARD HOPPER SUSPENSION allows removal of the feed hopper without affecting the feed line suspension when raising the feed lines for clean out and normal maintenance that might occur between flocks. The optional FEED **HOPPER ROTATION SUSPENSION KITS can** be easily installed on existing or new feed lines allowing the feed hopper to rotate 90 degrees without removing the feed hopper.

The rib on Cumberland's LOCK FORM TUBING gives added strength to the tube, as well as providing a solid way to hold the pans in place. The auger is manufactured from preflattened wire to reduce material stress and provide for a more consistent, high quality product.

Cumberland pan systems offer durability and reliable performance.



The SENS-O-MATIC II FEED HOPPER SWITCH has proven to be a reliable way to regulate your feed delivery. An optional adjustable bracket kit allows the Sens-O-Matic to be conveniently adjusted to proper operation height.

Traditional MICRO SWITCHES, PROXIMITY HOPPER LEVEL **CONTROLS and FLEX-FLO HOPPER LEVEL CONTROL SWITCHES** are available to regulate feed delivery.



WATERING SYSTEMS

High Quality, Low Maintenance

Cumberland's experience and engineering continue to bring to you a complete watering system loaded with innovations and features that promote large healthy birds and dry floors.

Cumberland's watering systems are engineered for easy installation, low maintenance, and cost saving operation.

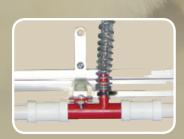


Cumberland's nipple drinker system includes the 360° side-to-side nipple valve toggle action, plus an increased flow rate with vertical lift action.



END KIT

- Extra strong design.
- Tall flexible sight gauge allows for easy pressure reading.
- · Garden hose drain.



AIR VENT

- · Bleeds air from high spots.
- Offers mid-line sight gauge reading.
- · Can be installed anywhere.



Twin Lock/J-Lock Nipple Valves

- 6 different styles available to meet your watering needs.
- Only 3 moving parts.
- Four times easier action.
- Stainless steel upper pin for long life and more precise flow rate.
- Quick and easy assembly for Twin Lock (no wrench required).





- External sealing "O-ring" connection allows unobstructed water flow.
- No glue necessary.
- 1.05" (27 mm) large volume pipe.
- Simple push together assembly.
- Keyed connection from regulator to end assembly.
- Light resistant water pipe prevents algae.



SELF SEALING CAP at the clear sight tube to prevent water spillage.

Cumberland's aluminum rail joint connectors are easy to install and provide a robust fit for your connection needs.





MID-LINE REGULATOR with its unique in-line design can be used as a mid-line regulator by simply removing the end cap.



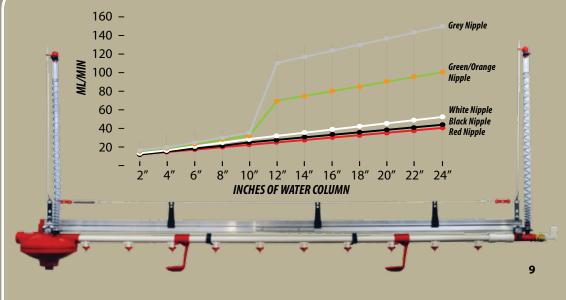
SUPPORT SYSTEM OPTIONS

- A. Aluminum Rail
- B. Round Pipe



DRINKING CUPS

The easy to install drink cup is available as an option on Cumberland's watering systems.



WATERING SYSTEMS

Feathersoft[™] Nipples

The patented FeatherSoft Broiler Nipples are designed to meet the demands of today's broad poultry production needs. Choose between FeatherSoft Advantage Nipples and FeatherSoft Hi-Flow Nipples with LitterGard to design a system that best satisfies the needs of your unique broiler operation.

- 360° side action triggering.
- Exact water metering at every age.
- Simplistic design.
- Square pipe advantage.
- Trouble-free performance.
- Corrosion resistant aluminum rails.
- Simple and quick assembly.
- Watering sections shipped completely preassembled.



TECH TALK

Number of Birds per Nipple 10-12 - FeatherSoft Advantage 14-17 - FeatherSoft Hi-Flow with LitterGard

Nipples per 10' Section - Standard

10 nipples per 10' (3 m) Section 12 nipples per 10' (3 m) Section 15 nipples per 10' (3 m) Section

Max. Recommended System Length 250' (80 m) per Regulator

Water Pressure Requirement -250' length

Pressure Regulator: min. 20 psi (1.380 bars) max. 45 psi (3.103 bars)







OptiGROW

The Ultimate Broiler Nipple Optimized for Growth

The OptiGROW nipple is designed to work in today's challenging broiler environment. Because the nipple has been optimized for growth, you will be amazed by the first-week low mortality results and increased weight gains on jumbo birds.

Low Thread Protection

Less restriction of water flow for better flushing

Increased Wall Thickness

Thick walls offer a more robust design and better chemical resistance

The large body provides better visibility

The new nipple body helps keep the nipple clean

Less triggering force gets dayold birds off to a fast start

ygienic Surface

The smooth inner surfaces avoid deposits and provide minimal friction for easier triggering

lcid-Resistant Materials

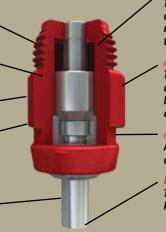
The special quality and grade of materials used provide the best protection against acid corrosion

Adapter Area

Accessories can be directly attached to the nipple body

arge Diameter Pin

The large diameter of the pin holds a large water drop



HEATING SYSTEMS



The new AV Series Tube Brooder, a first in the poultry industry, joins the ALL-STAR line up of products from Cumberland.

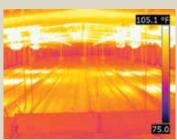
The AV Series Tube Brooder uses 4 tubes mounted in a V-Shaped pattern to direct the heat where it's most needed.

The AV Series upper combustion tubes contain the flame and operate at higher temperatures. Each tube has its own reflector allowing the hotter upper combustion tubes to concentrate more energy to the perimeter of the heating pattern.

The lower tubes are designed to distribute a lesser radiant energy resulting in reduced hot spots directly under the units and more uniform floor temperatures across the house. The U-bend at the end of the heaters have a separate end reflector directing the energy outwards, allowing optimum uniformity between units.







Heat from an AV Series Heater distributes heat more uniformly throughout the building, creating an even comfort zone for birds. (House pictured is 66' wide.) *Infrared photos courtesy of Auburn University - National Poultry Technology Center*

AV Series Features:

- No exposed flame to be effected by air flow or environment.
- Totally enclosed electronics and burner system.
- The highly polished aluminum reflectors allow optimum heat pattern for best uniformity.
- Offered with Dual Stage Technology to maximize fuel efficiencies.
- Low pressure system eliminates the need for high pressure gas lines inside the house.
- Minimal assembly required.
- Fresh air intake kit (attic version) with 4"x29" duct pipe, intake cap, chain hanging kit, and exhaust flapper cap are standard with each heater
- Indicator lights display if unit is in low or high fire at a glance.
- Easily access key components through an end service panel without having to remove the heater from suspension chains.
- Single Stage BTU: 80,000.
 Dual Stage BTU: 50,000 80,000.
- Option to direct vent.
- Option to duct fresh air to unit to ensure clean combustion and reduce maintenance.

AV SERIES SPECIFICATIONS

Heating Capacity (Maximum per Hour)		
Direct Spark Ignition (3 Tries Before Lockout)	80,000 BTU	20,160 Kcal
Maximum Gas Consumption		
LP	.87 gph	3.29 l/h
Natural Gas	75.5 cfh	2.14 m3/h
Gas Pressure Requirements (Measured on Pressure Tap on Valve with	h Unit Running)	
LP Minimum 11.0" wc	Maximum	14.0" wc
NG Minimum 5.0" wc	Maximum	14.0" wc
Heater Size & Weight Information		
Weight Per Complete Unit	103 lbs.	47 kg
Shipping Dimensions Burner Box 31.5"L x 17.25"W x 16.125"T	Tube Box	91L x 31W x 14H
Installed Dimensions (LxWxH)	107"x25.5"x13"	272x65x33 (cm)
Installation Guidelines		
Minimum Height from Floor (Measure from Floor to Bottom of Unit)	6 - 9 Feet	1.8 - 2.7 Meters
Space Between Heaters	40 - 60 Feet	12.2 - 18.3 Meters
Minimum Clearance to Combustibles		
Sides of Heater	36"	91 cm
Above Heater	10"	25 cm
Below Heater	40"	102 cm
Electrical Requirements		
AVD (Dual Stage) 120v 60Hz GRD, 3 wire	e 24vac	thermostat connection
AVS (Single Stage) 120v 60Hz GRD, 3 wire	?	
Starting Current	1.5	amps
Running Current	1.1	amps
Sensor Location Specifications		

- * Sensor should be placed over the feed or drinker line.
- * Sensor should be no more than 12' to the side from the center of the unit and 10' length wise from the end of the unit.

HEATING SYSTEMS

Radiant Tube Heat

Allowing heat to be radiated directly to the birds allows them to find their own comfort zone either closer to or farther away from the heater, according to preference. This reduces stress and creates an environment that allows for better bird performance.

Heavy Duty control and burner unit, using outside air for combustion.

The unique two stage burner adapts to varying conditions providing a more consistent comfort zone with fewer off cycles. Units operate at low fire the majority of the time for improved energy efficiency. High fire mode provides reserve heating capability when conditions require.



Patented Two-Stage Burner

- · Two-Stage Technology.
- Fuel savings.
- · Faster heat loss recoveries.
- · Improved comfort levels.
- · Reduction in equipment cycles.
- Design protection benefits.



Cumberland's AG-1 or AG-2 Heater Features

- 16 ga. aluminized combustion chamber (1st 10').
- Turbulator baffle for maximum efficiency.
- 4" overlapping slip-fit tube connections.
- High efficiency polished aluminum reflectors.
- Two mounting options: center or side mount.
- Solid state silicon carbide ignition system.

- Unique anti-rattle reflector springs.
- 24" PVC coated stainless steel flex connector.
- Ignitor changeable without tools.
- Bolted tube clamps.
- 2 x 4 electrical junction box.
- Air inlet collar standard.
- 100% enclosed components.
- 1/2" gas cock provided.
- Reflector end caps.

Getting heat where you want it can be difficult, one way to accomplish this, is to use Cumberland Radiant Tube Heaters. **INFRA-RED HEAT** emulates the true efficiency of the sun. It generates energy that is converted into heat when absorbed by objects like floors and animals. The energy is then re-radiated to warm the surrounding area by convection. This is the most efficient method of heating many poultry facilities.



The Super-Saver and Tube Heaters are available in CE Certified models.

Super-Saver XL Features & Benefits

- 250,000 BTU pilot light model features manual modulating valve (150,000 – 250,000 BTU's).
- Hot surface & direct spark models available in 40,000 to 250,000 BTU.
- High temp aluminized steel burn chamber.
- Side swing door for easy access and maintenance.
- Diagnostic lights for troubleshooting ease.
- Standard adjustable "Y" heat deflector.
- 1/3 HP totally enclosed thermally protected motor with sealed bearings.

- Available in 120 & 240 volt models.
- 1/10 HP on all 40,000 75,000 BTU models.
- Standard ½" gas cock installed at gas valve.
- Back-up safety sail switch.
- High limit safety switch (manual reset).
- On/Off toggle switch.
- Stainless steel, high altitude & CE certified models* available.
- Service-Saver enclosed control box.









The "SERVICE-SAVER" enclosed electrical control unit is sealed from debris such as dust and moisture and is accessible through a side swinging door making the unit easily field serviceable.



A side swinging door design gives **EASY ACCESS** to internal components like the "Super-Saver" control unit and blower motor, making it one of the easiest to service heaters on the market.



The **ELECTRONIC HSI IGNITION** is standard on all models. The heating chamber is made of high temp aluminized steel for superior rust protection. The cast iron burner is enamel dipped to eliminate dust

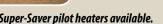
is enamel dipped to eliminate dust adhesion and rust. The air intake surround increases combustion and heat change efficiency.

*CE certified available in the HH-SS-225-XL Model



The outside mount model is a forced air heater complete with all relevant installation hardware.





Super-Saver XL Minimum Clearances					
Ceiling	12" (305mm)				
Wall	12" (305 mm)				
Floor	20" (508 mm)				

Heater must be positioned such that livestock and combustible materials are unable to come in contact with the heater or within 10 feet (3 meters) of the hot air discharge.

Super-Saver XL Specifications

Model#	Maximum Input	Ventilation	Voltage	Amps
SS-40-XL	40,000 BTUH (11.7kWh)	500 CFM (849.5 m ³ /hr)	120 Volts	2.5 Amps
SS-75-XL	75,000 BTUH (21.9kWh)	500 CFM (849.5 m ³ /hr)	120 Volts	2.5 Amps
HH-SS-120-XL	120,000 BTUH (35.2kWh)	1000 CFM (1699 m ³ /hr)	120 Volts	4.8 Amps
HH-SS-175-XL	175,000 BTUH (36.6kWh)	1000 CFM (1699 m ³ /hr)	120 Volts	4.8 Amps
HH-SS-200-XL	200,000 BTUH (58.6kWh)	1000 CFM (1699 m ³ /hr)	120 Volts	4.8 Amps
HH-SS-225-XL*	225,000 BTUH (65.9kWh)	1000 CFM (1699 m³/hr)	120 Volts	4.8 Amps
HH-SS-250-XL	250,000 BTUH (73.3kWh)	1200 CFM (2039 m ³ /hr)	120 Volts	6.0 Amps

LP/Propane Gas

Maximum 14 in. W.C. (34.8 mbar) and minimum 12.5 in. W.C. (31.1 mbar) inlet gas supply pressure acceptable at gas regulator connection. Burner manifold pressure of 11 in. W.C. (27.4 mbar) at maximum input. Gas pressure should be checked by a certified gas technician while heater is in operation.

Natural Gas

Maximum 14 in. W.C. (34.8 mbar) and minimum 5 in. W.C. (12.5 mbar) inlet gas supply pressure acceptable at gas regulator connection. Burner manifold pressure of 3.5 in. W.C. (8.7 mbar) at maximum input. Gas pressure should be checked by a certified gas technician while heater is in operation.

HEATING SYSTEMS

Radiant Brooder

A consistent, stress-free environment promotes healthier, more productive animals. Radiant heaters provide a consistent, clean-burning and fuel-efficient source of warmth for all types of poultry houses. With near 100% efficiency, and liquid propane or natural gas compatibility, the thermostat controlled Radiant Brooder uses less energy to yield greater BTU's for your money. Easy to maintain, corrosion resistant and simple to install, Cumberland brooders are the complete solution for your poultry house heating.



Control Options

Zone Control Radiant Brooder

For single or multi-zone installations using central or multiple thermostats. This 24 volt AC zone type control can also operate on 12 volt DC as backup if desired. The gas valve includes a built-in regulator. A 24 volt power supply is required. Brooder can be operated by 24 volt thermostat, computer or environmental controller. 100% gas safety shut-off valve.

Modulating Radiant Brooder

A modulating type HI/LO control with integral thermostat. No electrical supply is needed. Upon call for heat, valve will open from pilot to low fire and modulate between low and high fire as necessary to maintain desired temperature setting. When thermostat has been satisfied, valve will modulate down to low fire and then drop to pilot. 100% gas safety shut-off valve.

Non-Modulating Radiant Brooder

An individual, non-electric and fully automatic On/Off control with integral thermostat which operates on millivolts generated by the pilot — no electrical supply needed. Integral thermostat features a wide temperature range for easy adjustment. 100% gas safety shut-off valve.

Direct Spark Ignition

A 24 VAC direct spark ignition system. No pilot light saves fuel and maintenance costs.

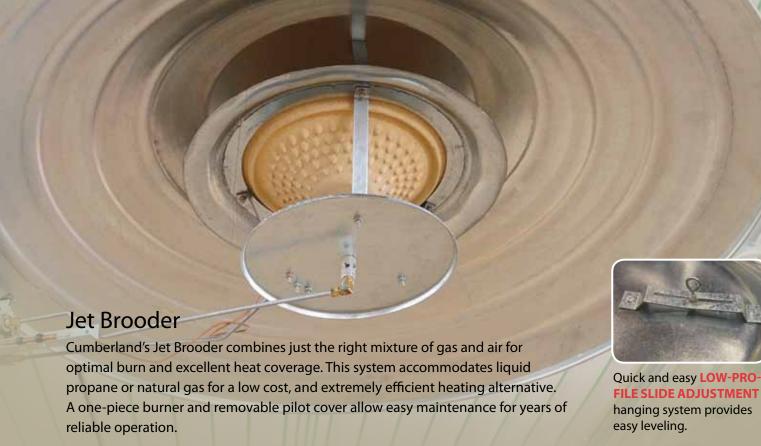
RADIANT BROODER SPECIFICATIONS

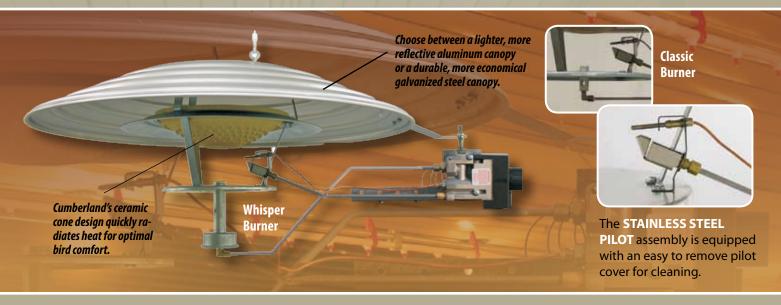
Input Rating (LP or NAT)		40,000 BTU/HR	11.72 kw
Gas Supply Pressure	LP Natural	12-14" w.c. 6-14" w.c.	30-35mbar 15-35 mbar
Mounting Height		60-72"	1520-1830mm
Brooder Spacing		25-40′	7.6-12.2 m
Brooder Size	Canopy Diameter	35"	890 mm
Weight		23 lbs.	10.5 kg
Ventilation Required	Per Brooder	200 CFM	340 m³/hr
Gas Consumption	LP Natural	.43 GPH .40 THERM	4.63 l/hr 42.2 MJ/hr
Minimum Clearance to Combustibles	Side Top Below	36" 18" 48"	915 mm 460 mm 1220 mm

A consistent, clean burning & fuel efficient source of heat.



Cumberland's durable **THERMOSTAT** ensures accurate, automatic operation and are moveable for your convenience.







The **ZONE CONTROL PANEL** allows you to control up to 30 brooders from one place. It also features a battery backup, four fused zone connections and one thermostat.



Cumberland's **ZONE CONTROL VALVE** (30,000 - 35,000 BTU) allows you to manage your whole system with a single temperature adjustment.



CONTROL VALVE Modulating (21,000 - 35,000 BTU) Non-Modulating (30,000 - 35,000 BTU)

S.I.T. GAS

Jet Brooder with S.I.T. controller has its own adjustable thermostat (a range of 70°-115° in 7° increments) for optimal control and consistent temperatures. S.I.T. controller conversion between non-modulating and modulating operation is simple, requiring only the change of a screw. The S.I.T. controller features a safety shut off and accommodates LP or natural gas.

VENTILATION FANS

A main contributor to high bird stress and low bird weight is an overheated or poorly ventilated poultry house. Even if your building is well ventilated, inefficient equipment can blow healthy bird profits right out the window. Cumberland ventilation systems are the perfect solution.

A balance of performance, features, and value come with Cumberland's 50" & 54" Butterfly fans.

- Simple Butterfly style shutter structure improves fan performance and stability.
- Uses a magnetic shutter panel ring to alleviate movement of shutter doors while not in operation. In turn, the sealing area is reduced 50% or more compared to the traditional louver style shutter, resulting in lower
- Easy to assemble, flangeless cone panels.

heating cost during winter months.



GALVANIZED STEEL FANS



The **BUTTERFLY FAN** eliminates the need for the traditional louver shutter which are prone to dust buildup. During fan operation, the air forces the shutter doors open to provide full fan performance.

ARCHED SIDE CONE PANELS allow Cumberland fans to be mounted closer together on field installations.





Front shutter doors offer PROTECTION FROM HARSH WEATHER CONDITIONS such as wind and moisture while the fan is not in use.



Easy access **DRIVE TRAINS** come standard with all belt drive fans. Large, cast iron, high quality greasable pillow block bearings are used for longer life. Large pulleys allow for longer belt life and smooth operation. An automatic belt tensioner ensures proper belt tension.



Cumberland offers 36" AND 50"

SLANTWALL FANS in belt drive and direct drive models to efficiently and effectively maintain optimal environmental conditions. All galvanized fans are constructed of heavy gauge, G-90 grade galvanized steel and use totally enclosed "TEAO" motors designed for high efficiency and continuous duty cycles. Galvanized fan propellers are aerodynamically balanced for maximum air flow.



OPTIONAL DISCHARGE CONES

can boost fan output by as much as 10-15%, greatly increasing efficiency. Made of all galvanized steel, cones are available in easy to ship and assemble four-piece segments for 36" & 50" models.



Cumberland **DIRECT DRIVE OR BELT DRIVE BOX FANS** feature heavy duty galvanized steel housings, grill guards, venturis and propellers. Box fans are available in 36" (14" and 19" depth) or 50" (21" and 25" depth) diameters.

Cumberland fans offer superior airflow and reliable performance.



Factory assembled, pre-wired, 20" CIRCULATION FANS are available for light air movement. These highly efficient 20" fans include 1/10 HP "TEAO" motors and galvanized props for whisper quiet operation. Other features include PVC coated guards for durability and multi-application hanging bracket. Choose from our long-standing, 3-bladed fan with standard grill spacing, or our new economical 2-bladed fan, with a more widely spaced grill.

VENTILATION FANS

Cumberland's fiberglass ventilation fans are manufactured using a "Resin Transfer Molding" (RTM) process for a smooth finish on both interior and exterior surfaces of the fan housing. The basic fan includes a heavy vinyl coated guard, PVC shutter, and all aluminum and stainless steel mounting hardware.



and longevity all needed to be maintained while keeping the price as competitive as possible.

> You will find the Performer Series ventilation fans have not only met, but exceeded those goals.

Cumberland's **COMPETITOR SERIES** fans are the airflow champions. Available in up to 54" models, harnessed with high efficiency motors, and capable of moving up to 30,000 cubic feet of air per minute, Competitor series fans are another powerful tool to help you compete in today's world marketplace.

Features include a 1.5 HP single phase motor or a 1.75 HP three phase motor, easy belt access, fiberglass housing and cone, and stainless steel hardware.

The belt driven 54" competitor series fans offer an automatic belt tensioner providing smooth operation and constant belt tension. Like all Cumberland belt drive fiberglass fans, cast iron pulleys and greasable pillow block bearings are standard features.



36" and 50" fiberglass models available with and without cones.



COMPOSITE PROPELLERS are made of a tough composite fiberglass. Engineered with a true airfoil design, these propellers increase the overall efficiency of the fan providing optimum airflow effectiveness.



DRIVE SHAFTS of 1" material allow for large, cast iron, greasable pillow block bearings to be used for longer life. Large pulleys allow for longer belt life and smoother operation.

GALVANIZED FAN PERFORMANCE VALUES

					0.0 Stati	c Pressure	.05 Stati	c Pressure	.10 Stat	ic Pressure	BESS Lab
Model	Dia.	Drive	Туре	HP	CFM	CFM/Watt	CFM	CFM/Watt	CFM	CFM/Watt	Test #
G50CBF16GA	50"	Belt	Butterfly	1.5	25238	27.4	23524	24	21807	20.8	4309
G50CBF16GAHE	50"	Belt	Butterfly	1.5	23915	30.2	22131	25.9	19937	22.1	4310
G50CBF16GAHF	50"	Belt	Butterfly	1.5	26913	24.2	25427	21.5	23603	18.9	4308
G54CBF16GA	54"	Belt	Butterfly	1.5	-	-	* 31800	22.6	29450	19.8	6218
G54CBF16GAE	54"	Belt	Butterfly	1.5	-	-	27500	25.9	24720	21.7	6223
G54CBF16GAU	54"	Belt	Butterfly	1.5	-	-	25000	28.8	21850	23.3	6222
CGSB36	36"	Belt	Slantwall	0.5	10578	19	9984	17.1	9379	15.5	98273
G50SL16GA	50"	Belt	Slantwall	1	22373	18.6	21042	17	19595	15.5	98283
CGSD36	36"	Direct	Slantwall	0.5	10417	17.5	9747	15.8	9105	14.2	94-0015
CGSD50	50"	Direct	Slantwall	1.25	20400	19.2	19300	17.5	18100	15.8	94328
CGBB3614	36"	Belt	Box	0.5	10171	19.6	9615	17.8	8969	15.8	00128
CGBB5021	50"	Belt	Box	1	20861	20.9	19486	19.1	18071	17.4	94276
CGBD3614	36"	Direct	Box	0.5	10950	19.3	10280	17.7	9560	16	94131
CGBD5021	50"	Direct	Box	1.25	20450	1909	19200	17.8	17910	15.9	94283
CGSBC36	36"	Belt	SW Cone	0.5	11341	20.9	10653	18.4	9898	16.4	98275
G50SCL16GA	50"	Belt	SW Cone	1	24700	22.5	23100	20	21500	17.7	3168
G54SCL16GA	54"	Belt	SW Cone	1.5	28900	27.1	26700	23.6	24300	20.4	-
G54SCL16GHF	54"	Belt	SW Cone	1.5	30856	24.0	29184	21.3	27185	18.8	-

^{*} Performance values of this fan at .05" static pressure exceeds the BESS Lab test capabilities and were calculated through regression analysis of CFM and CFM/Watt measurements.

FIBERGLASS FAN PERFORMANCE VALUES

					0.0 Stati	c Pressure	.05 Stati	ic Pressure	.10 Stat	ic Pressure	BESS Lab
Model	Dia.	Drive	Cone	HP	CFM	CFM/Watt	CFM	CFM/Watt	CFM	CFM/Watt	Test #
APPB-36	36"	Belt	No	0.5	10952	16.1	10152	15.4	9339	14	-
APPB-36C	36"	Belt	Yes	0.5	11232	18.2	10905	17.5	10135	15.8	-
APPB-50	50"	Belt	No	1	21508	17.6	20160	15.7	18707	14.4	-
APPB-50C	50"	Belt	Yes	1	24282	23.4	22760	21	21129	19	01251
CS54C1-P	54"	Belt	Yes	1.75	32125	-	30044	20.2	28157	18.3	-

Low maintenance shutters with no parts to rust.

Available in a variety of sizes and materials, we have a **FAN SHUTTER** to fit your particular requirements be it low light, low maintenance or low cost. The true airfoil design of our shutter blades make them extremely effective allowing for very little performance loss. Simple to install and built to last a lifetime, Cumberland shutters can provide an easy and affordable means of controlling incoming light and building climate.





Cumberland **PVC SHUTTERS** come in white or black, and are very low maintenance and easy to clean. The black shutters are used in reduced lighting applications. **GALVANIZED SHUTTERS** have galvanized frames, with epoxy painted blades to reduce rusting, allow easy cleaning and provide additional protection. **ALUMINUM SHUTTERS** offer great durability in any environment.



Better Service. Better Products

CURTAIN MACHINES

Protect the health of your investment with a properly controlled curtain system. Cumberland's curtain machines deliver powerful performance and reliable operation with durable components to withstand a rigorous environment.

Cumberland's **CURTAIN CONTROLLER** is a screw driven automated curtain machine with a heavy duty 15, 30 or 60 RPM motor. Multi-directional, frame mounted, header pulleys and latch out assembly come standard.



The drive block assembly features a removable nylon insert in a heavy-duty powder coated weldment which simplifies maintenance, decreases friction and provides wear characteristics superior to conventional brass drive blocks. UHMW polyethylene guide wheels insure smooth travel, proper alignment and stability.

A plastic water resistant junction box is accessible from the outside of the curtain controller.



Solid construction and rust resistant materials make the sprocket controller a reliable workhorse year after year.



The Curtain Controller utilizes a threaded block and drive screw directly coupled to a direct drive gear motor.



Isolated primary and secondary limit switches allow for backup protection.

Model	Н. Р.	Voltage	Frequency	AMP Draw	Travel Speed	RPM
15 RPM Curtain Controller	1/12	115V	60 Hz	1.0 Amps	3" per minute	15
30 RPM Curtain Controller	1/8	115/220V	50/60 Hz	1.7 Amps	6" per minute	30
60 RPM Curtain Controller	1/6	115V	60 Hz	1.8 Amps	12" per minute	60
A.T. Newell	1/2	115V	60 Hz	6.0 Amps	3" per minute	1725

Curtain Commander Length	"A" Travel	"B" Width	"C" Length	"D" Width Less Flange	Weight
24" (61 cm)	22" (55.9 cm)	10.2" (25.9 cm)	52" (132.1 cm)	9.5" (24.1 cm)	110 lbs. (49.9 kg.)
36" (91.4 cm)	34" (86.4 cm)	10.2" (25.9 cm)	64" (162.6 cm)	9.5" (24.1 cm)	130 lbs. (58.9 kg.)
48" (121.9 cm)	46" (116.8 cm)	10.2" (25.9 cm)	76" (193 cm)	9.5" (24.1 cm)	150 lbs. (68.0 kg.)
60" (152.4 cm)	58" (147.3 cm)	10.2" (25.9 cm)	88" (223.5 cm)	9.5" (24.1 cm)	160 lbs. (72.6 kg.)

CUMBERLAND'S AUTO CURTAIN



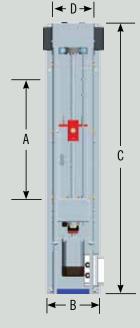
Cumberland's AUTO CURTAIN operates on a cable system by winching a cable around a grooved drum controlled by a thermostat and timer.

A 506S version uses a sprocket and chain drive that wraps the curtain, or door drop cords around a building length pipe eliminating the need for cable.



HARDWARE KITS are available with heavy duty galvanized steel components including sealed needle bearing pulleys, and plated, anti-wrap designed fasteners for ease of installation.







POWERCRAC

SOMESTRAC

Vent Machine

- Machine designed specifically for vent inlet applications.
- 15 or 30 RPM 120v, 60hz, 1ph.
- 30 RPM 240v 50/60hz, 1ph.
- 42.5" overall machine length for tight areas or short walls.
- Maximum travel length on rod is 12".
- A threaded block and drive screw is directly coupled to a direct drive gear motor.
- Hardware included for cable or chain connection.

Operate attic inlets, vent doors, and other items requiring a 12" or less controlled movement at, or under, a 2,000 lb. capacity with the POWERTRAK "VENT MACHINE". Designed for a wall or ceiling mounted indoor installation, this machine will provide a more cost effective way to operate your vent inlet applications. The PowerTrak "Vent Machine" is available in 15 or 30 RPM models and can be ordered in either 120v or 240v single phase units. (Note: 240v units available in 50/60hz)



Door hinges from top of the cabinet on a ceiling mount or can be easily removed on a wall mount for unobstructed access to components.



Composite load nut offers increased life expectancy over brass.

Easy adjust

switch system.



Channel lock "trak-drive" system captures load block.



Get on trak with

powerful solutions.

SOMESES

The Super Strength System for Curtains & Vent Doors

- Modular construction for ease of service.
- · Built in head bracket with needle bearing pulleys.
- Channel lock "trak-drive" system captures load block.
- 15% increase in load block support surface for greater life.
- Easy adjust spring-cam limit switch system.
- · Convenient, easily removable, hinged springlock door.
- Greater protection from the elements.
- Upper and lower auxiliary contact for enhanced Evolution features.

With a 5,000 pound capacity, the superior quality and design of the **POWERTRAK** linear drive system boasts many performance and durability enhanced features.







Cumberland's **SIDEWALL VENT DOORS** are used in poultry applications where transitional ventilation is required.



The all plastic Curved Sidewall Vent Door directs fresh air into the house along the ceiling toward the peak for gentle air mixing without downdrafts on the birds.



All galvanized construction and simple to install, Cumberland vent doors are maintenance free and provide years of optimum circulation.

CLIMATE CONTROL

Attic Vents

Cumberland's Attic Vent ACI Series is precision engineered to extract solar heat from the attic space so it can be used as a valuable heat source. This unique and innovative design is cost effective, durable and easy to install.





Incorporating all of the same benefits of the ACI-2500 and ACI-4000 Series, Cumberland's new PACI-2500 Series are pressure actuated and operated by constant force of springs controlled by static pressure.

The Attic Vent System is designed to be retrofit friendly in most drop ceiling poultry houses.



Exceptional air mixing for a better in house environment.

ATTIC VENT SPECIFICATIONS

Part Number	Description	Full Open Airflow @ 0.10 SP	Horizontal Airflow @ 0.10 SP	Framed Opening
ACI-2500P2	All Plastic Actuated Ceiling Inlet	2500 CFM	1700 CFM	19"W x 27"L
ACI-2500GP2	Actuated Ceiling Inlet - Galvanized Frame	2500 CFM	1700CFM	21.5"W x 27"L
ACI-4000P2	All Plastic Actuated Ceiling Inlet	4000 CFM	2500 CFM	19"W x 46.5"L
ACI-4000GP2	Actuated Ceiling Inlet - Galvanized Frame	4000 CFM	2500 CFM	21.5"W x 46.5"L
PACI- 2500GP2	Plastic 2500 Pressure Actuated Attic Vent - Galvanized Frame	2100 CFM	1300 CFM	21.5"W x 27"L
PACI-2500P2	All Plastic 2500 Pressure Actuated Attic Vent	2100 CFM	1300 CFM	19"W x 27"L



- Drier Litter.
- Lower Ammonia Concentration Levels.
- Better environment for the bird.



Mixing warm air from the attic with house air during minimum ventilation reduces fuel consumption as compared to using cold air through sidewall inlets. Fuel savings can vary depending on management, house construction and climate.

With an insulation value of R-8, the **SINGLE DOOR TUNNEL INLET** provides excellent energy savings compared to conventional curtain inlets.

Cumberland's single doors are comprised of lightweight rigid laminate foam panels and include a profiled rubber seal for an airtight fit. Single door tunnel inlets are available in 4', 5', & 6' heights and include two color options, black for dark out conditions, and white when dark out conditions are not required.

Tunnel Inlet Door Systems

Tunnel inlets help to eliminate dead zone areas created by curtain sidewalls and curtain pockets. Cumberland offers single door and two door tunnel inlet options. The single door comes fully assembled and is a rigid laminate foam panel that is ultra lightweight for easy installation. The two door is comprised of rigid PVC. All brackets are galvanized for durability and long life.

Cumberland's **FORMED RUBBER SEAL** (profile right) provides an airtight seal. Molded runners make for easy alignment and quick installation.



Over time, cords can stretch requiring tension re-adjustment. Cumberland's easy adjuster makes insuring a reliable door seal a simple task.



Lower energy costs with Cumberland's lightweight tunnel inlet doors.

TWO DOOR TUNNEL INLETS are constructed of lightweight rigid PVC allowing for easy installation and 9 times the insulation value of conventional curtain material. H-channel and C-channel slide onto the PVC panels for a proper seal. These inlets are only available in white and can be operated with a curtain machine.



COOLING SYSTEMS

Evaporative Cooling Systems

Evaporative cooling systems utilize the natural cooling effect of evaporation to combat seasonal dips in production caused by heat stress.

Made of high quality stainless steel or aluminum, the **OPEN TOP SYSTEM** offers the grower easy access to manage and maintain their evaporative

cooling system. This systems' design allows you to see the water jets and easily check water pressure. It also offers access to the spray bar for cleaning.



The **CLOSED TOP SYSTEM** is extruded from ultraviolet stabilized PVC for durability and ease of installation. The hinge-open cover and thumbscrews allows accessibility to the spray bar and hold pads firmly in place. The spray bar bracket and water deflector insure pads are uniformly wet.

Cumberland's PRE-FORMED SQUARE TROUGH serves as a 3 gallon per lineal foot (44.8 liters per meter) water reservoir. Constructed of corrosion proof, ultra-violet stabilized PVC components, the trough allows unevaporated water to be recirculated back to the holding tank. A perforated tray snaps to the trough to hold pads firmly in place. Injection molded end caps and couplers speed installation.





Other Evaporative Cooling System Features Include:

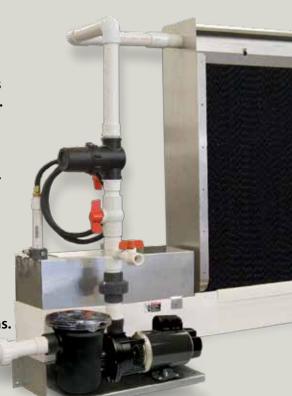
- Submersible pump keeps water levels consistent for efficient water delivery.
- Automatic float valve for matching water supply with water demand.
- Trough support brackets for suspending the system on a sidewall.
- · Wide selection of cooling pads.
- · Easy removal of pads for cleaning.





Jet Pump Features

- The Jet Pump System provides an external self priming pump.
- Trough mounted float valve eliminates the need for an external tank.
- The Permanent Split Capacitor motor eliminates the start switch and will mount to the wet end of any previous Jet Pump kit.
- Our Jet Pump System is field proven, reliable and a cost effective way to deliver water to Evaporative Cooling Systems.





• Strongest & heaviest pad available.

- Produced using the most advanced curing process.
- Use the most advanced resin technology.
- Superior black diamond edge coating.
- Custom sizes from 2' to 6' tall.
- Made in the USA.



Cam-Lock system allows toolless pad installation and replacement.



The spray bar bracket and water deflector insure pads are uniformly wet.

CONTROLS

Precise control of temperature, airflow, bird weight, water consumption, feed inventory, and lighting is a must for achieving top profits for growers. Cumberland's complete line of control systems cover all of these elements in cost effective, easy to operate management systems.

Cumberland's **PRO VISION** controller offers professional environmental systems management with minimal effort. Pro Vision's grower friendly features include:

/

Easy to Install and Setup

- Easy step by step setup mode.
- Large keypad for easy adjustment.
- USB port for updating and saving settings.
- Personal computer setup software.
- Optional input board for up to 32 additional temperature probes.

V

Easy to Use!

- Large screen with friendly style interface that allows the user to instinctively navigate controller screens minimizing learning process time.
- Access any menu with minimal keystrokes.
- 10 hot keys give you quick access to main settings.
- Menus can easily switch from english to spanish.
- A high resolution display enables easy to read conditions.



Easy to Service!

- Outstanding high voltage surge protection.
- Pull out wire terminals.
- Built-in diagnostic software.
- Optional AMP reading relays.



A USB key allows for easy program changes and updates.

PROVISION An ENVIRONMENTAL CONTROLLER so easy you'll manage like a Pro!



The Pro Vision enclosure and circuit board mounting system allows plenty of space for wiring and room for expansion. An optional input board allows for up to 32 additional temperature probes.

The most "Grower Friendly" controller on the market.

Other Pro Vision Features Include:

- 4 modes (broiler, breeder, layer, and turkey).
- Enhanced attic vent operation.
- 2 Tunnel inlet outputs.
- Up to 6 digital inputs for feed or water.
- 12 time clocks.
- Stir fan operation based on temp or minimal ventilation.
- Up to 8 natural curtain zones (turkey and breeder modes only).
- Up to 9 lighting programs.

- Up to 10 ventilation programs.
- · Water line flushing, with up to 8 outputs.
- Heat and feed runtime monitoring.
- · Water spill alarm.
- Operate inlets by time or static pressure.
- Up to 16 heat zones, 32 using hi/low fire.
- 128 maximum relay capacity.
- · Detailed alarm history.
- Loop feeding clocks.
- · Nighttime setpoint.



Relay Panels

- 32 & 40 output relay panels.
- On/off/auto relay switches.
- Open/off/close switches for curtain relays.
- Clear protective door.
- LED on lights.



I-BOX gives you the power to direct your controller(s) operation and information to one powerful management and reporting system. All data changes, events, and alarms are automatically logged as they occur. Multi-user support with remote connect through the internet, Wi-Fi, and more. For more information, visit us online at WWW.CUMBERLANDPOULTRY.COM



Expert-WW Controller

- Ventilation based on static pressure and temperature.
- Upload/download chip for easy transfer of Settings.
- Two timed curtain output for tunnel ventilation.
- Energy saving features.
- Manual override switches, indicator lights and relays for each stage.
- 20 relays built in.

Agri-Alert

Common to all alarms

Complete alarm systems for monitoring temperature, power, water system, burglary, and more



AA 800EZK & AA 800EZL

- Graphical LCD screen:
 - · View information quickly & clearly.
 - Intuitive screen design.
 - Easy navigation through menus.
- Re-settable fuses on PCB; no more blown fuses to change.
- Integrated rechargeable back-up battery.
- 2 output relays that can be activated by phone; can call up to 8 different phone numbers (home, phones, pagers, cell phones, etc.).
- Recordable messages for system id and individual zone voice labeling.
- Acknowledge alarms by phone.
- Call in from off site for zone temperatures
 & system status reports.
- Auxiliary 12vdc power supply. (AA-WM3000 wireless compatible)
- Outdoor temperature compensation feature (standard with AA 800EZK).

All Agri-Alert systems include:

- **Spike** \$\frac{1}{7}\$ **Block** surge/lightning protection on all zone inputs and system outputs. Offers up to six times the protection of most other alarm systems.
- Outdoor temperature compensation feature available on all models.
- Reliable 12 volts rechargeable gel-cell battery back-up.
- Programmable alarm recall feature for acknowledged but unresolved alarms.
- Self-diagnostics of complete system including wiring, sensors, outputs, fuses, battery, etc.
- Programmable alarm recognition delays for each individual zone.
- Dialing of alarms to multiple phone numbers: pagers, cell phones, or telephones.
- Alarm memory log with time, user & date stamp (last 10 alarms).
- Security with up to 10 programmable user access codes.
- Built-in phone line seizure for added security.
- Off-site phone-in capabilities for checking temperatures and other system functions.
- Moisture and dust-tight ABS enclosures for harsh environment locations.



AA 2400

- Starting with 8 supervised zones that can be activated or bypassed individually or in partitions.
- Expandable to 24 zones using expansion cards (max.2 cards) and 8 zones per expansion card.
- Any zone can be configured for dry contact, temperature, 4-20 ma input, 0-5 volt input, pulse count, or burglary.
- 2 output relays with form "c" contacts. Relays can be operated from the keypad or a phone.
- Built-in or remote microphone for on-site listening.
- Outdoor temperature compensation feature (uses 1 zone).
- Can call up to 8 different phone numbers.
- Recordable system ID message.
- Auxiliary 12 volt DC power supply.



AA 9600

- Starting with 8 supervised zones that can be activated or bypassed individually or in groupings.
- Expandable to 24 zones locally using expansion cards (max. 2 cards) - 8 zones per expansion card.
- Expandable to 96 zones in total using serial bus interface to remote transponders and keypads.
- Any zone can be configured for dry contact, temperature, 4-20 ma input, 0-5 volt input, burglar, AC current.
- Min/max temperatures displayed on screen.
- Auxiliary 12 volt DC power supply.
- Can call up to 16 different phone numbers.
- Outdoor temperature compensation feature (uses one zone).
- Event buffer to record all system events in non-volatile memory (up to 2000 events).

CONTROLLER ACCESSORIES



Sundial Power Module

- Light intensity can be different in zone 1 & 2 or identical.
- Two resistive loads of 3600W each.
- Manual Mode: Can be used as a stand alone unit.
- Auto Mode: Light intensity in the selected zone(s) is automatically adjusted by the controller.



Humidity Sensor Probe



Water Meter



Static Pressure Transmitter

Cumberland offers the complete broiler package taking birds from day old to adult with equipment and components growers have come to rely on.



Featherweight Bird Scale II

- Weigh birds 24 hours a day.
- Gives accurate data.
- Helps birds reach the desired TARGET weight.
- Featherweight can have up to 4 platforms 2 in each house. Each platform has an independent reading.
- Load cells are not on the floor, giving you a precise reading every time.
- Push-button access to information.
- Daily information:
 - Average weight.
 - Number of weight.
 - Standard deviation.
 - Uniformity and daily gain.
- I-Box Compatible.



Hanging Scale

Back-Up Safety Relay Box

• Up to eight (8) stages. Back-up Safety Relay Box does not include thermostats.









Better Service, Better Products.

Your Agriculture Company Cumberland and Hired-Hand are a part of GSI, a worldwide Brand of AGCO

Cumberland; P.O. Box 20; 1004 E. Illinois Street; Assumption, IL. 62510 USA; Ph: 217/226-4401; USA Fax: 800/353-8491; International Fax: 217/226-4420; E-Mail: cumberland@cumberlandpoultry.com; Website: www.cumberlandpoultry.com